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09/707,050

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04/05/2004

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EXAMINER.

LE, BRIAN Q

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 04/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/707,050

Applicant(s)

ENOKIDA ET AL.

Examiner

Brian Q Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/05/2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5, 8-12, 16, 18, 20, 23-27 and 31-34 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 5, 8-12, 16, 18, 20, 23-27, and 31-34 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment and Arguments

1. Applicant's amendment filed February 05, 2004, has been entered and made of record.
2. Applicant's arguments, see page 11, filed January 30, 2003, with respect to the rejection(s) of claim(s) 1, 16, and 31 under Lipson U.S. Patent No. 6,463,426 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sato U.S. Patent No. 6,246,804.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 5, 8-12, 16, 18, 20, 23-27 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding to independent claims 1, 16, 31 and 34, the Applicant asserted that on page 20, line 10, through page 21, line 7 of the specification, illustrates the amended limitation of claim 1. However, the Examiner disagrees that the disclosed location of the specification does not show the exact concept of the new amended limitations of the claim. The Examiner requests the Applicant to further explain or point out where exactly in the specification that clearly teaches the first and the second calculations of image similarity as claimed wherein the weight values are obtained based on a size of the

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designate arbitral region included in the segmented region. Regarding claim 5, the Applicant also needs to point out the support of specification regarding the integration of weighted similarities for the segmented regions to obtain the image similarity.

Claims are not specifically addressed depend from indefinite antecedent claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5, 8-12, 16, 18, 20, 23-27 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lipson U.S. Patent No. 6,463,426 and Sato U.S. Patent No. 6,246,804.

Regarding claim 1, Lipson teaches an image search method of searching for a desired image from a plurality of images stored in storage means (abstract), comprising:

A designation step of designating an arbitral region in an image (particular regions of the image) (abstract)

A first calculation step of dividing a designated search source image and each of the plurality of images stored in the storage means into the plurality of segmented regions, and performing similarity calculation in units of the segmented regions to obtain similarity for each of the segmented regions between the designated search source image and each of the plurality of

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images stored in the storage means (generate scores in similarity calculation) (FIG. 5; FIG. 7B; FIG. 11, element 234);

A second calculation step of calculating image similarity between a designated search source image and each of the plurality of images on the basis of the similarity for each of the segmented regions calculated in the first calculation step and the weight value set in the setting step (FIG. 7B, elements 162 and 164); and

An acquisition step of acquiring an image as a search result from the plurality of images on the basis of the image similarity calculated in the second calculation step (FIG. 7B, elements 168 and 170).

However, Lipson does not clearly teach the setting step of setting a weight value in units of segmented regions obtained by segmenting the image into a plurality of segmented regions, based on a size of the designated arbitral region included in the segmented region. Sato teaches a method of retrieving and searching images (abstract) applying a method of setting step of setting a weight value (size information of arbitral region) (FIG. 4, element 302 and FIG. 47, S211) in units of segmented regions obtained by segmenting the image into a plurality of segmented regions, based on a size of the designated arbitral region included in the segmented region.

Modifying Lipson's method of searching and retrieving desired images according to Sato would be able to enhance the searching and retrieving capability by assigning values to size of interested region of the image to further increase higher accuracy and increase the searching speed by limiting the number of images to be search. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Lipson according to Sato.

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For claim 5, Lipson also teaches the method wherein the second calculation step comprises a step of calculating, in units of segmented regions, weighted similarity based on the similarity calculated in the first calculation step and the weighted set in the setting step, and integrating the weighted similarities for the segmented regions to obtain the image similarity (the process of generating similarity between each of the primary image region and the target image region and the process of combining the similarity scores together, sort them and generate result to obtain the final image similarity) (FIG. 5; FIG. 7B; FIG. 11 and FIG. 11A).

Regarding claim 8, Lipson teaches the method further comprising a display step of displaying an image representing the image acquired in the acquisition step as the search result (FIG. 1, element 16).

For claim 9, Lipson teaches the method wherein the display step comprises displaying a thumbnail image of the image acquired in the acquisition step (FIG. 1A, element 20).

Referring to claim 10, Lipson further discloses the method wherein the display step comprises displaying an icon image corresponding the image acquired in the acquisition step (FIG. 1A).

Also for claim 11, Lipson also teaches the method wherein the display step comprises, when one of displayed images is selected, displaying details of an image linked to the image (FIG. 1A).

In addition to claim 12, Lipson discloses the method wherein the display step comprises displaying extracted images in an order of similarities (FIG. 1A).

For claims 16, 18, 20, and 23-27, please refer back to claims 1, 3, 5, and 8-12 respectively for the explanations.

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Regarding claim 31, please refer back to claim 1 for the explanation.

For claim 32, Sato also teaches the method wherein the setting step, the weight value of each segmented region is set based on a ratio of the designated arbitral region to the segmented region (FIG. 47, element S213 and S214 and FIG. 52, S236).

For claim 33, please refer back to claim 32 for the explanation.

Regarding claim 34, please refer back to claim 1 for the explanation.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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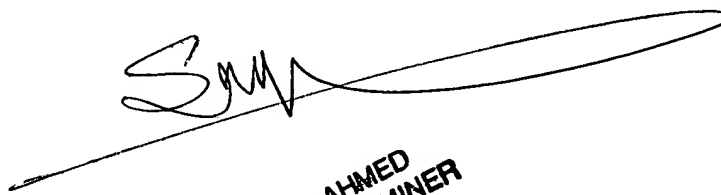
Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL
March 29, 2004



**SAMIR AHMED
PRIMARY EXAMINER**